

ABSTRACT OF THE DISCLOSURE

A method is disclosed for improving printer characterization tables to best reproduce desired colors on a destination device given the ambient illumination at that device's location. The user determines viewing illumination using a target preferably provided with the printer or alternatively printed directly from the characterized printer. The target comprises metameric color pairs allows which users to quickly determine their approximate viewing illumination by selecting the matching pair. A metameric match of color pairs (metamers) is defined to have equal colorimetric values, XYZ or LAB, for one illumination and differing reflectance spectra. Each color pair corresponds to a different illumination condition. All pairs of metamers which comprise the target are examined to determine which pair is the best match. Targets could be bipartite patches, half-and-half images, readability tasks, or images. The appropriate color-correction transform for the selected illumination is applied. Alternatively the color-correction transform for the selected illumination is modified directly.